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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,053	08/09/2001	Haruhiko Ikeda	P/1071-1453	4134

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08/12/2003

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EXAMINER

HARAN, JOHN T

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/927,053

Applicant(s)

IKEDA, HARUHIKO

Examiner

John T. Haran

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1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1&5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 19-27 in Paper No. 7 is acknowledged.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 8/9/01 and 1/4/02 have been considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 19, 23, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-179832.

JP 07-179832 teaches a bonded structure comprising two electrodes bonded together by a conductive adhesive comprising scale-like conductive fillers and an organic binder wherein the organic binder is cured and the conductive fillers are fusion bonded to the surface of the electrodes (See English abstract and Figures). JP 07-179832 anticipates claims 19, 23, and 26.

It is noted that the claims are product by process claims and that the method for obtaining the bonded structure is given no weight. Claim 19 only requires electrodes bonded together with a conductive adhesive comprising a cured organic binder and

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conductive fillers fused with the surface of the electrodes. Any bonded structure that meets these limitations meet the claim regardless of how it was formed.

5. Claims 19, 20, 21, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilleo (EP 265077).

Gilleo is directed to a bonded structure comprising electrical terminals (electrodes) located on substrates bonded together by a conductive adhesive. The conductive adhesive comprises conductive fillers and a thermosetting adhesive (organic binder). The thermosetting adhesive is cured and the conductive fillers and the surfaces of the electrical terminals are fusion bonded together (Column 2, lines 12-50; Column 5, line 31; and Figure 1). Gilleo anticipates claims 19, 20, 21, and 26.

It is noted that the claims are product by process claims and that the method for obtaining the bonded structure is given no weight. Claim 19 only requires electrodes bonded together with a conductive adhesive comprising a cured organic binder and conductive fillers fused with the surface of the electrodes. Any bonded structure that meets these limitations meet the claim regardless of how it was formed.

6. Claims 19-22 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaynes (U.S. Patent 5,542,602).

Gaynes is directed to a method of forming a bonded structure wherein the completed bonded structure comprises metal bonding pads (electrodes) located on substrates bonded together by a conductive adhesive. The conductive adhesive

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comprises a conductive filler and a thermosetting adhesive (organic binder). The bonded structure includes an alloy metal coating on the electrodes, a fusion bond between the surfaces of the conductive particles and the electrodes with the conductive particles penetrating the surface of the electrodes and cured thermosetting adhesive (See Column 4, lines 33-36; Column 5, lines 29-65; and Figure 13B). Gaynes anticipates claims 19, 20, 21, 22, 25, 26, and 27.

It is noted that the claims are product by process claims and that the method for obtaining the bonded structure is given no weight. Claim 19 only requires electrodes bonded together with a conductive adhesive comprising a cured organic binder and conductive fillers fused with the surface of the electrodes. Any bonded structure that meets these limitations meet the claim regardless of how it was formed. Similarly claim 20 only requires the organic binder to be a thermosetting resin and claim 22 only requires a surface coating on the electrode with a lower melting point.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 23-24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaynes et al (U.S. Patent 5,542,602) as applied above to claims 19-22 and 25-27 in view of JP 07-179832.

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Gaynes et al is relied upon for the teachings noted above.

Gaynes et al teaches the conductive fillers are spherical, but is silent towards the conductive fillers being scale-like particles, however it is well known and conventional in the conductive adhesive art for conductive fillers to be scale-like particles, as evidenced by JP 07-179832 (See Figure 1). One skilled in the art would have readily appreciated that spherical and scale-like conductive fillers are alternate expedients and it would have been obvious to use one over the other. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use scale-like particles for the conductive fillers as is well known and conventional in the art in the product of Gaynes et al.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John T. Haran** whose telephone number is **(703) 305-0052**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

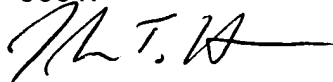
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0661.



John T. Haran

August 11, 2003



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700